UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,155	12/19/2003	Kumar S. Golla	42P16956	5998

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EXAMINER
CHEN, WENPENG

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/742,155	GOLLA ET AL.
	Examiner	Art Unit	
	Wenpeng Chen	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>19 December 2003</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Drawings

1.   The drawings are objected to because Figs. 3 and 4 contain handwritten characters.

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "404-410" and "412-430" on page 9.

3.   Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4.   The disclosure is objected to because of the following informalities.

-- In paragraph 1, the numbers of various related applications shall be provided.

-- In line 7, paragraph 0033, the meaning of symbol "D" shall be defined.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 1-6 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for the following reasons.

There are insufficient antecedent bases for the following limitations.

-- Claim 1 recites the limitation "the clean up pass" in line 2.

-- Claim 12 recites the limitation " the processor's register set " in line 2.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Taubman (US patent 6,778,709.)

Taubman teaches a method for determining zero coding or run length coding, comprising:

-- in response to a selected bit to be processed with the clean up pass (column 8, lines 57-68; the Normalization pass) , executing an

instruction to

- identify state variables associated with selected coefficient bits to be processed; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; $\sigma[m,n]$ are state variables.)

- identify state variables associated with horizontal and vertical neighboring bits of the selected bits to be processed; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; $\sigma[m,n]$ are state variables.)

- determine whether state variables associated with coefficients bits and neighboring bits are zero; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

- in response to state variables associated with coefficient bits and neighboring bits being all zero, select nm length coding; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

-- wherein the state variables are significance state variables; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; σ[m,n] are significance state variables.)

-- in response to at least one state variable associated with coefficient bits and neighboring bits being non-zero, select zero coding; (column 8, line 57 to column 10, line 43; especially column 9, line 24 to column 10, line 13)

-- wherein the state variables correspond to an array of quantized coefficients being scanned; (column 5, lines 26-36)

-- determine whether state variables associated with coefficients bits and neighboring bits are zero on every four pixels and in every bit plane; (column 10, lines 1-13)

-- wherein the processor executes instruction compatible with JPEG2000. (column 26, lines 61-65)

Taubman teaches a system, comprising:

-- a memory; (column 21, lines 7-22)

-- a processor to execute an instruction to identify state variables associated with selected coefficient bits to be processed; (column 21, lines 7-22)

-- identify state variables associated with horizontal and vertical neighboring bits of the selected bits to be processed; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; σ[m,n] are state variables.)

-- determine whether state variables associated with coefficients bits and neighboring bits are zero; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

-- in response to state variables associated with coefficient bits and neighboring bits being all zero, select run length coding; (column 8, line 57 to column 10, line 43; especially column 9, line 62 to column 10, line 13)

-- wherein the state variables are significance state variables; (column 8, line 57 to column 10, line 43; especially column 9, line 34 to column 10, line 13; σ[m,n] are significance state variables.)

-- in response to at least one state variable associated with coefficient bits and neighboring bits being non-zero, select zero coding; (column 8, line 57 to column 10, line 43; especially column 9, line 24 to column 10, line 13)

-- wherein the state variables correspond to an array of quantized coefficients being scanned; (column 5, lines 26-36)

-- wherein the processor executes instruction compatible with JPEG2000; (column 26, lines 61-65)

-- wherein the state variable is aligned in the processor's register set. (column 24, lines 36-68; column 25, lines 34-40)

Claims 13-18 are the corresponding medium claims of the methods of Claims 1-6. Because Taubman also teaches medium (memory) to store the instructions associated with the method (column 21, lines 7-22), Taubman also teaches Claims 13-18 (the above-cited passages and column 21, lines 7-22.)

Conclusion

9.   The prior art made of record in form PTO-892 and not relied upon is considered

pertinent to applicant's disclosure.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Wenpeng Chen whose telephone number is 703 306-2796. The

examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David K Moore can be reached on 703 308-7452. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9306 for regular

communications and 703-872-9306 for After Final communications. TC 2600's customer service

number is 703-306-0377.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703 305-4700.

Wenpeng Chen

Primary Examiner

Art Unit 2624

January 5, 2005